



PALS Pope Farm Expansion Project

INAG 248



Outline

- Montgomery County Food Security Analysis
 - Site Analysis
 - Crop Plan
 - Economic Analysis
 - Initiating Process



Montgomery County Demographics

60% White

15.6% Asian

20.1% African
American/Black

20.1% Hispanic/Latino

Food Insecurity in Montgomery County

total population: 1,050,688

% of Montgomery County population that is food insecure: 8% (83,208)

The County's most food insecure communities:

Eastern County, Wheaton, Silver Spring, Gaithersburg, Aspen Hill, and Germantown

Top 3 racial groups most likely to need food assistance:

Black or African American, Hispanic, and Asian people

Ethnic groups with largest foreign born populations in the County:

El Salvador, China, India, Korea, and Ethiopia



International Recipe Ideas Straight from the Plant!

El Salvador – Pupusas

- Declared El Salvador's national cuisine
- Corn flatbread with meat and cheese topping or filling.
- Often topped with *curtido*, a Salvadoran slaw of cabbage, onion, carrots, oregano.

India – Butter Chicken

- Pieces of tandoori chicken cooked in a tangy, velvety tomato cream sauce.
- Cardamom, cumin, cinnamon, coriander, pepper, fenugreek, chili powder, and turmeric are its traditional spices and flavors.

China – Hot Pot

- Making soup by gently cooking raw vegetables in the serving bowl by pouring hot broth over the top, and allowing them to steep.
- Uses an array of veggies, herbs, and flavors like: ginger, garlic, mung bean sprouts, green onions, mushrooms, and bok choy.

Ethiopia – Doro wat

- National dish of spicy chicken stew made with onions, garlic, and ginger.
- Doro wat was originally specific to Amhara culture, but increased mobility spread this food tradition.



Potential Crops for Pope Farm



Orégano



Mung Beans



Radishes



Cilantro
(Coriander Spice)



Chilies



Cardamom



Onions
(varieties)



Garlic



Bok Choy



Ginger



Carrots



Cabbage



Turmeric
(root or spice)

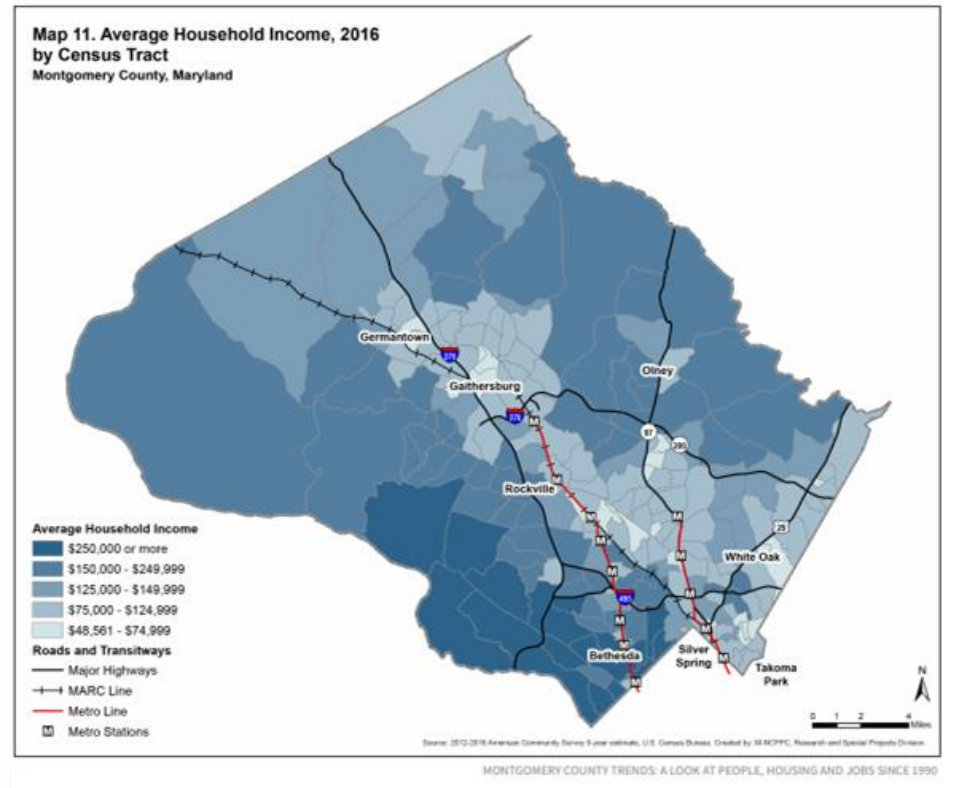


Mushrooms

- # Economic Analysis

Montgomery County communities that suffer most from food insecurity are in areas with the lowest household income. These include:

Gaithersburg, Germantown,
Wheaton, Silver Spring, and
Takoma Park.

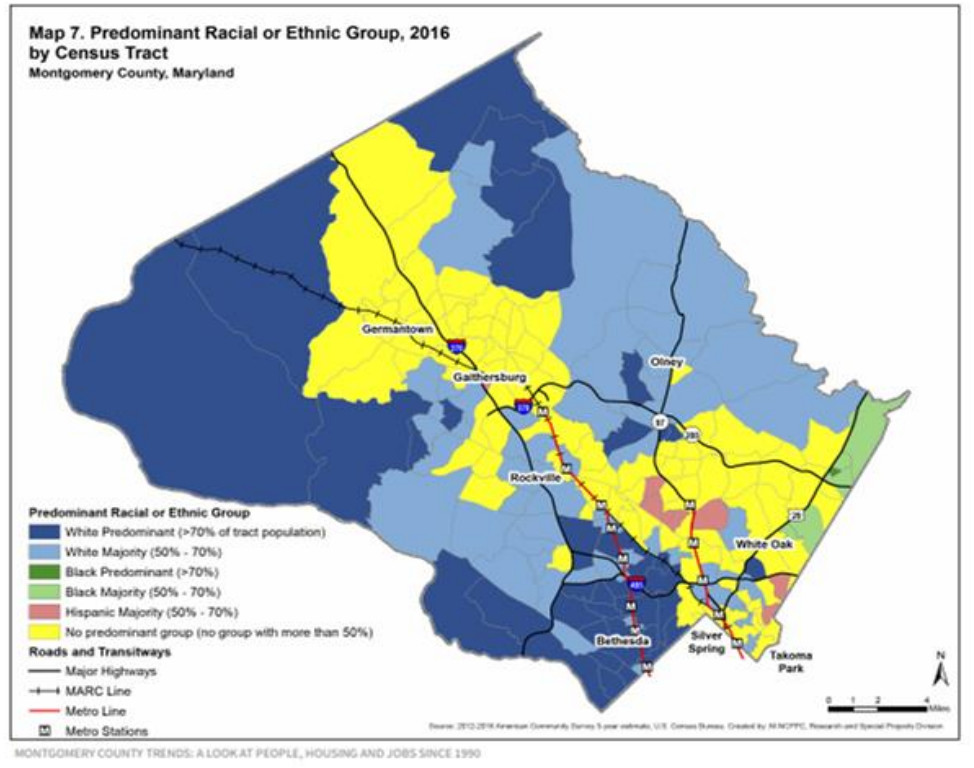


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• Economic Analysis

The areas with the lowest household incomes are located in the most diverse communities.

The areas highlighted in yellow represent the most diverse areas with household incomes between \$48,000 and \$75,000.



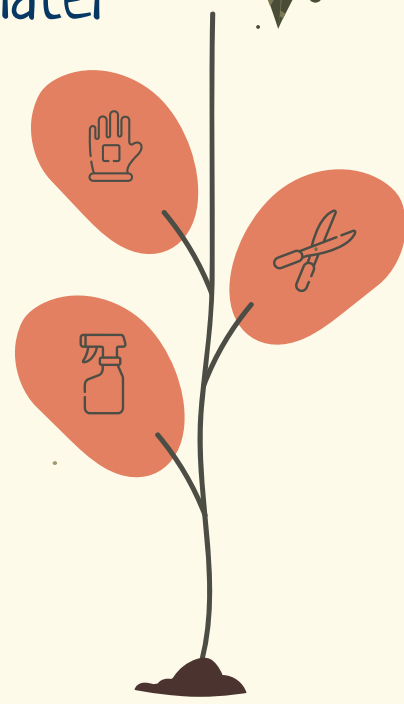
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COVID-19 impact – one year later

Before Covid-19 food insecurity was the lowest it has been since the Great Recession, but still at 37 million people in the US.

At the start of Covid-19, 14 million workers lost their jobs, leaving them with little to no family income.



Due to the pandemic an estimated 17 million people in the US could become food insecure, more than 54 million people including 18 million children without consistent access to food.



Garden Design

8,000 sq. ft (0.2 acres) available for food production

Recommend a 71-foot by 111-foot planting area

18 100-foot rows of each crop

4 extra rows will accommodate a crop that needs more space



Crop Organization

(based on 0.2 acres + expansion potential)

Tomato family	Carrot family	Onion family	Cabbage family	Cucumber family	Spinach family	Pea family
tomatoes	carrots	onion	cabbage	cucumber	beets	peas
peppers	celery	garlic	broccoli	squash		beans
eggplants	parsley		rutabaga	gourds		
potato						

Crops will be organized based by plant family
and which plants share a bed



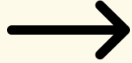
Crop Production Plan

Crop	Yield per 100' row	Start Planting Date	Location	DS or TP	Seed or Plants per 100' Row	Plant Family
bean (pole)	80 lb			DS		Pea- Fabaceae
beets	40 lb greens; 65 lb roots	Apr 1-June 15		DS	2 oz	Spinach - Chenopodiaceae
broccoli	50 lb	Apr 1-May 1		TP	67 plants	Cabbage- Asteraceae
cabbage	150 lb; 60 heads	Mar 15-Apr 10		TP	100 plants	Cabbage- Asteraceae
cabbage	150 lb; 60 heads	Mar 15-Apr 10		TP	100 plants	Cabbage- Asteraceae
carrots	150 lb	Apr 10-June 1		DS	1/2 oz	Carrot- Apiaceae
cauliflower	80-120 lb	Apr 1-May 1		TP	67 plants	Cabbage- Asteraceae
celery		Apr 15- May 1		TP	300 plants	Carrot- Apiaceae
cucumber	120 lb	May 10-June 1		DS	1/2 oz	Cucumber- Cucurbitaceae
eggplants	200 lb	May 15-June 10		TP	67 plants	Tomato- Solanaceae
garlic	50-90 lb	Mar 15-Apr 15		DS	400 cloves	Onion - Amaryllidaceae
onion (bulbing)	140 lb	Apr 1-May 1		TP	400 plants	Onion - Amaryllidaceae
onion (bunching)	100 lb	Apr 1-May 1		TP	400 plants	Onion - Amaryllidaceae
parsley		Apr 1-May 1		DS	1 packet	Carrot- Apiaceae
peas (fresh)	25 lb	Mar 15-May 1		DS	1/2 lb	Pea- Fabaceae
peppers	20-80 lb	May 15-June 10		TP	67 p;ants	Carrot- Apiaceae
potato	60-150 lb	Mar 20-May 10		DS	8 lb	Carrot- Apiaceae
rutabaga	150 lb	July 1-Aug 1		DS	1/2 oz	Carrot- Apiaceae
summer squash (zucchini)	200 lb	May 1-May 30		DS	1 oz	Cucumber- Cucurbitaceae
summer squash (yellow)	200 lb	May 1-May 30		DS	1 oz	Cucumber- Cucurbitaceae
sweet potato		May 20-June 10		TP	100 plants	Convolvulaceae
tomatoes	150-450 lb	May 1-May 30		TP	67 plants	Tomato- Solanaceae



Initiating Process

Create a 4-year rotational crop plan

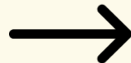


Take a aerial image of the site for garden design



Gardening schedule:

- fertilizing
- weeding
- watering



Create potential composting system



Transportation

Food should be picked up and distributed to food assistance providers the same day as harvest to ensure quality and freshness

Produce should be picked up by clients soon after it's gathered by Harvest Share volunteers





Harvest

First, develop a consensus on the vegetables the best fit to plant

For more help during the harvesting seasons, HarvestShare and Pope Farm should reach out to high school students who need to complete Student Service Learning hours (SSL) to graduate.



Thanks!

Are there any questions?

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